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Montana Water  
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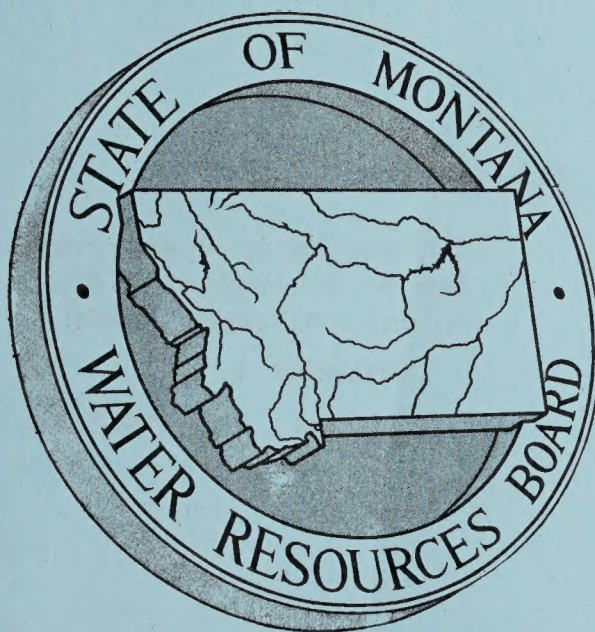
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Information Bulletin

Functions

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Objectives





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## INTRODUCTION

This bulletin deals directly with the Montana Water Resources Board and explains in detail its functions, personnel and objectives under its present status of operation.

Some of the most important legislative measures passed recently which affect the Montana Water Resources Board are the enactment of the Montana Water Resources Act of 1967. (89-101.1 to 89-103, 89-103.3, and 89-132.1); Water Rights - Notice of Appropriation (89-801 to 89-801.2, and 89-813); and Conservancy Districts (89-3401 to 89-3449).

Under the Montana Water Resources Act the needs and policy of the state with regard to its water resources are defined as:

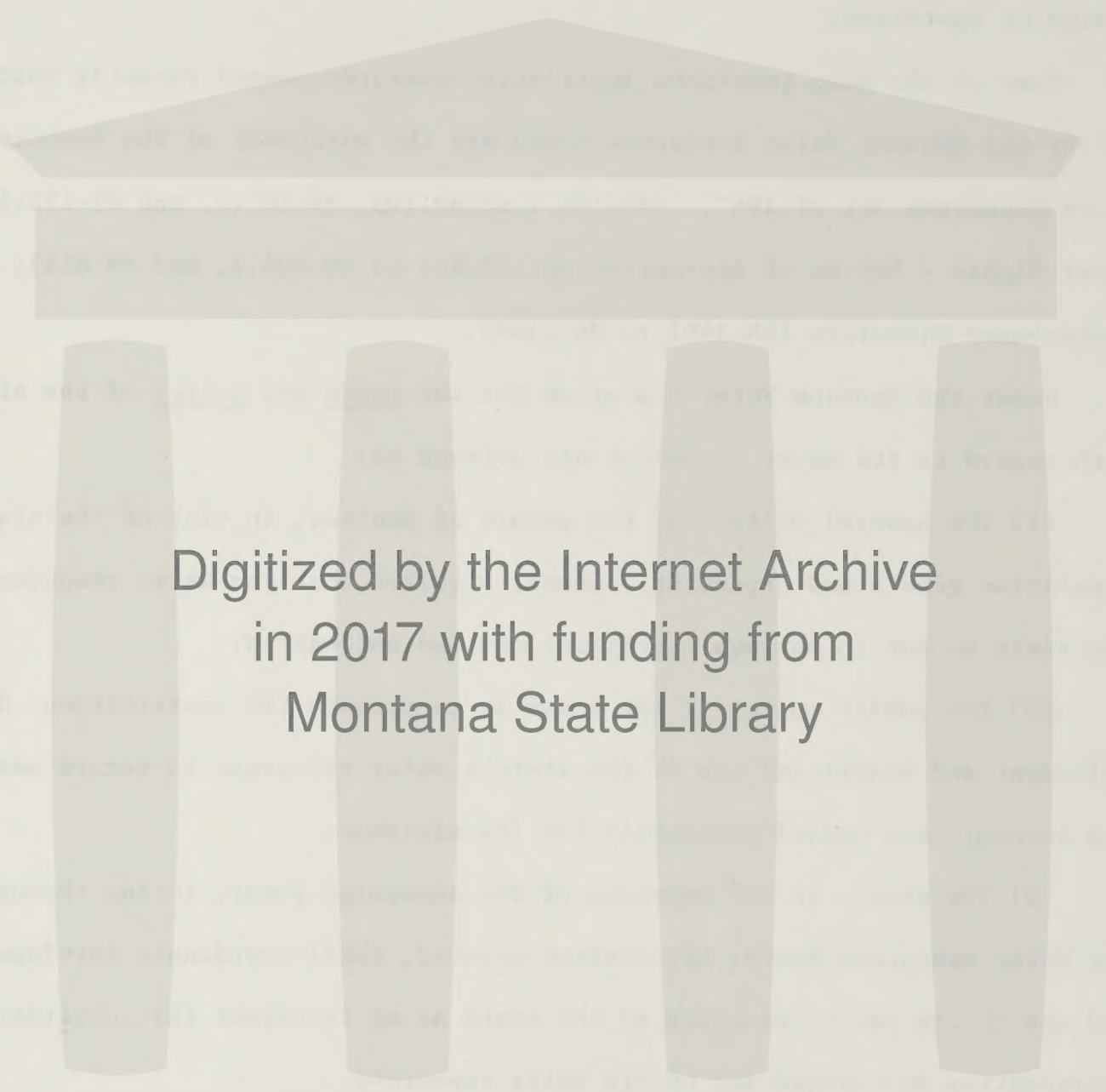
(1) The general welfare of the people of Montana, in view of the state's population growth and expanding economy, requires that the water resources of the state be put to optimum beneficial use and not wasted.

(2) The public policy of the state is to promote the conservation, development and beneficial use of the state's water resources to secure maximum economic and social prosperity for its citizens.

(3) The state, in the exercise of its sovereign power, acting through the Water Resources Board, hereinafter created, shall coordinate development and use of its water resources of the state so as to effect full utilization, conservation and protection of its water resources.

(4) The development and utilization of water resources, and the efficient economic distribution thereof, are vital to the people in order to protect existing uses and to assure adequate future supplies for domestic, industrial, agricultural and other beneficial uses.

(5) The water resources of the state must be protected and conserved to assure adequate supplies for public recreational purposes and for the conservation



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of wildlife and aquatic life.

(6) The public interest requires the construction, operation and maintenance of a system of works for the conservation, development, storage, distribution and utilization of water, which said construction, operation and maintenance is a single object and is in all respects for the welfare and benefit of the people of the state.

(7) It is necessary to coordinate local, state and federal water resources development and utilization plans and projects through a single agency of the state government, hereinafter created and to be known as the "Montana Water Resources Board."

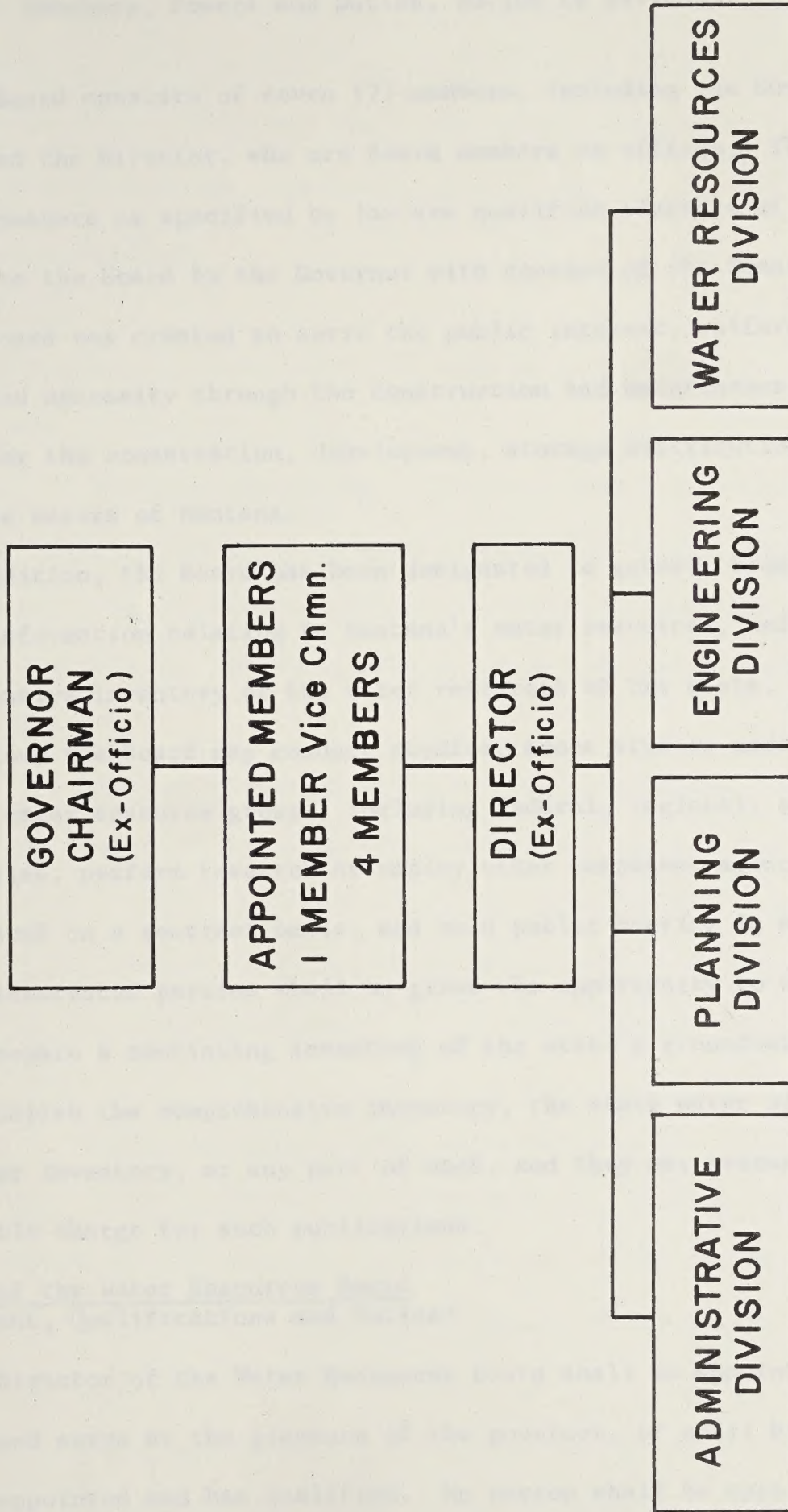
(8) The greatest economic benefit to the people of Montana can be secured only by the sound coordination of development and utilization of water resources with development and utilization of all other resources of the state.

(9) To achieve these objectives and to protect the waters of Montana from diversion to other areas of the nation, it is essential that a comprehensive, coordinated multiple-use water resource plan be progressively formulated to be known as the "State Water Plan."





# MONTANA WATER RESOURCES BOARD







## MONTANA WATER RESOURCES BOARD

(Members, Powers and Duties, 89-103 to 89-103.3)

This Board consists of seven (7) members, including the Governor as chairman and the Director, who are Board members ex-officio. The five (5) remaining members as specified by law are qualified electors of the state, appointed to the Board by the Governor with consent of the Senate.

The Board was created to serve the public interest, welfare, convenience and necessity through the construction and maintenance of a system of works for the conservation, development, storage distribution and utilization of the waters of Montana.

In addition, the Board has been designated to gather, from any source, reliable information relating to Montana's water resources, and to prepare a comprehensive inventory of the water resources of the state. In preparing the inventory the Board may conduct studies, adopt studies made by other competent water resource groups, including federal, regional, state or private agencies, perform research or employ other competent agencies to perform research on a contract basis, and hold public hearing in affected areas at which interested parties shall be given the opportunity to appear.

To prepare a continuing inventory of the state's groundwater resources.

To publish the comprehensive inventory, the state water plan and the groundwater inventory, or any part of each, and they may assess and collect a reasonable charge for such publications.

### Director of the Water Resources Board (Appointment, Qualifications and Duties)

The Director of the Water Resources Board shall be appointed by the governor and serve at the pleasure of the governor, or until his successor shall be appointed and has qualified. No person shall be appointed director





who has not such theoretical and such practical experience and skill as to qualify him to carry out the duties required of him.

The director shall be the chief administrative officer (officer) of the State Water Resources Board and shall perform and execute in the name of the Board all ministerial acts required of him by law.

#### Administrative Division

##### FUNCTIONS

The overall functions of the Administrative Division can be broken into four categories:

Personnel Management - The development and maintenance of an employee recruitment program appropriate for all divisions and positions, developing methods of retaining competent employees by providing for job satisfaction and maintaining a personnel records system.

Finance Management - The acquiring, spending, saving, borrowing and investing of monetary funds; the providing and utilizing of capital credit and funds of all kinds employed in a normal operation of the Montana Water Resources Board; and the efficient utilization and adequate regulation of all revenue, expenditure, capital and funds.

Office Management - The responsibility for (1) acquiring, maintaining and providing for the proper use of office machines and equipment; (2) written products of the office (forms, correspondence and reports); (3) filing and retaining office papers (records management); and (4) office layout.

General Management - This involves such responsibilities as (1) the preparation for and the orderly conduct of meetings;





(2) effective information and public relations programs; (3) assisting division heads with management and human relations problems; (4) providing guidance on the use of instructional visual aids; and (5) worthwhile retirement counseling programs.

#### PERSONNEL

The personnel in the Administrative Division are as follows: Personnel Director and Director of the Division is generally responsible for planning, directing, and coordinating all administrative matters for the Montana Water Resources Board. His responsibilities are primarily in the four functions mentioned above - personnel management, finance management, office management and general management. The qualifications for holding this position are a minimum of a bachelor of science degree in education, business management, or in the behavioral sciences. At least five years of experience is also desirable for this position.

Another position in the Administrative Division is that of Director of Public Information. He is responsible for press relations, printing and publications, public information and special assignments such as publicity for the Governor's Council on Natural Resources, developing slide series, fair exhibits, etc.

The accounting section handles the fiscal management portion of the division. It presently includes a Chief Accountant; two Assistant Accountants; Contract Clerk; and a Project Clerk. The qualifications for the chief accountant position would be a minimum of a college degree in accounting with at least five years experience. The two assistant accountants should have a minimum of two years of concentrated training in accounting. The contract clerk and the project clerk should have some basic knowledge of bookkeeping and should be trained in typing and





other secretarial practices.

Another position in the Administrative Division is that of Microfilm Supervisor. This person is responsible primarily for the records management portion of our operation. He does the actual microfilming and then is responsible for the storage and retrieval of microfilm records. A basic qualification for this position would be a general knowledge of microfilm equipment. It is also helpful to have training in records management.

A part-time typist works primarily for the Director of Public Information, as well as assisting with the telephone service in the front office. The qualifications for this position would be proficiency in typing.

The Secretary to the Personnel Director. Performs secretarial duties involving taking dictation, typing, preparing routine correspondence and reports, maintaining personnel records, scheduling appointments, answering telephones, and related clerical duties. She also assists with the front office activities. The qualifications for this position would be a minimum of a high school diploma with business college training in typing, shorthand, and general secretarial practice. It is also desirable to have experience in dealing with the public.

#### OBJECTIVES

The basic objective of the Administrative Division is to provide good, efficient service to the other divisions in regard to the functions mentioned above. Another objective of the division is to establish an effective wage and salary administration program. This is necessary in order to hire competent employees and to properly motivate them to better



performance through financial incentives.

Future emphasis will be given to modernizing the records management and fiscal management programs.

### Planning Division

#### FUNCTIONS

The Planning Division is charged with the duty of gathering information relating to Montana's water resources, preparing a continuing, comprehensive inventory of the state's water resources and formulating a comprehensive, coordinated, multiple-use water plan to be known as the "State Water Plan." The State Water Plan will set out a progressive program for the conservation, development and utilization of the state's water resources, and propose the most effective means by which these water resources may be applied for the benefit of the people, with due consideration of alternative uses and combinations of uses.

The Planning Division consists of two sections - the Planning Section and the Land Classification Section.

The Planning Section - is responsible for the collection of all water resource data in the state, computerization of this data into file management systems and utilization of the data in plan formulation. This section is also responsible for publications arising through the course of plan formulation.

The Land Classification Section - is responsible for the classification of all potentially irrigable lands in the state. These lands are delineated on county maps, planimetered and tabulated to give an overall picture of the potential irrigable land that could be developed in the future.





The Planning Division is also responsible for maintenance of a library for the Water Resources Board. This involves ordering, receiving and cataloging of all materials which will be maintained for reference purposes.

#### PERSONNEL

The personnel in the Planning Division are as follows:

The Division Director is responsible for planning, directing and coordinating all activities involved in development of the State Water Plan. In addition to this he participates in regional planning efforts which involve the state. The qualifications for holding this position are a minimum of a bachelor's degree in planning, engineering or the natural sciences. At least three years experience in a managerial position is desirable. Also beneficial would be a balance of training and experience in several of the relevant professions such as ecology, economics, engineering, fish and wildlife biology, forestry, hydrology, irrigation, geography, recreation, sanitary engineering, soil conservation, or urban or other land planning.

The secretary to the Planning Director also serves as the Board librarian. In addition to secretarial duties involving typing, taking dictation, answering the telephone, acting as receptionist, filing, scheduling appointments and making reservations, she must also maintain the library by checking books in and out, ordering and receiving and cataloging new publications. The qualifications for this position would be a minimum of a high school diploma with a strong business college education in typing, shorthand and general secretarial practice, as well as a strong background in library science. Previous experience in dealing with the public would also be desirable.





Another secretary performs secretarial duties for the two sections of the Planning Division. These secretarial duties involve taking dictation, typing, preparing routine correspondence and reports, answering the telephone and related clerical duties. The qualifications for this position would be a minimum of a high school diploma with business college training in typing, shorthand, and general secretarial practice.

The Planning Section consists of a Chief Planning Analyst and a Planning Analyst. The qualifications for the Chief Planning Analyst include a minimum of a bachelor's degree in planning, engineering or geography and a minimum of one year in at least three of the following: general office procedure, geography of Montana, water and related land resource planning, computer sciences, management and human relations.

The Planning Analyst should have a minimum of a college degree in planning, engineering, or geography, preferably with some computer science background.

The Chief of the Land Classification Section, a soil scientist, is responsible for supervision of the work of the section, and classification and technical report writing on soils, topography and drainage as it pertains to sustained irrigated agriculture. The qualifications for this position include a bachelor's degree in soils, agronomy, or a closely related field and at least four years experience in conducting land classification or soils surveys. This experience should preferably be in the Rocky Mountain area, with at least two years working with irrigated areas.

Another soil scientist assists the chief of the section in supervision as well as land classification. This position requires a college degree, preferably in soils.



The Land Classification Section includes three draftsmen, one of whom, the Chief Draftsman, supervises the other two in drafting maps onto which land classes and irrigated areas are delineated. Requirements for these positions include a high school diploma, and some knowledge of mechanical drawing or drafting. In addition, the chief draftsman should have at least six months experience in map making, knowledge of legal land descriptions and land classifications.

The areas delineated on the maps by the draftsmen must be planimeted and the acreages tabulated. This work is done under the direction of the Tabulations Supervisor. This job requires a high school graduate with a minimum of six months experience in land classification, legal descriptions of land and the use of planimeters and tabulating equipment. One part-time tabulator is presently included in the section. This position requires a steady hand and a person adept in the use of figures.

#### OBJECTIVES

The Planning Division is committed to the development of a State Water Plan by the end of 1972. This plan must be dynamic and responsive to changing conditions as well as changing needs. Preliminary analysis of some of the data indicates serious data gaps. Additional studies will be undertaken to eliminate these gaps in our knowledge. In addition, detailed studies will be undertaken to plan for project development.

The Planning Division works with most other local, state and federal agencies concerned with water resources, planning, and data processing. Our activities are closely coordinated with the Water Resources Council which provides some planning funds under P.L. 89-80, the Water Resources Planning Act of 1965. The Planning Division has also sponsored research





at both Montana State University and the University of Montana. This research will provide valuable assistance to development of the State Water Plan.

### Engineering Division

#### FUNCTIONS

The functions provided by the Engineering Division to the Montana Water Resources Board can be subdivided into the following general areas:

Project Management Function - this involves primarily the management of the 29 active projects under the jurisdiction of the Water Resources Board. The work associated with this function includes: (1) cooperation with the water users' associations; (2) identification of problem areas and needs for reorganization; (3) liaison between the design section, legal counsel and the water users in the writing and delivering of repayment contracts for various monies allocated by the Board; and (4) for the construction inspection during installation of any facility.

Hydrography Function - this involves (1) stream measurements; (2) canal flow-rate measurements on M.W.R.B. projects; (3) work with the U. S. Geological Survey on a cooperative stream measurement project; and (4) reservoir measurements on the various storage facilities controlled by the Water Board.

Design Function - the responsibilities for this function involve: (1) scheduling of field surveys for design purposes; (2) designing the various new facilities needed on M.W.R.B. projects; and (3) preparation of plans and specifications.

Planning Function - this involves work in: (1) the studies





related to the formation of conservancy districts as authorized by Senate Bill 67 which was passed by the 1969 Legislature; (2) work with the Resource Conservation and Development projects administered by the Soil Conservation Service in an attempt to include as much of the project work needed by M.W.R.B. into the cost-sharing programs that are available; and (3) liaison between the Engineering and Planning Divisions in the work on the State Water Plan.

#### PERSONNEL

The following paragraphs describe the various positions and sections in the Engineering Division, and the qualifications and duties of the individuals or groups:

The director of the Engineering Division is the Chief Engineer and has general responsibilities for planning work, scheduling personnel, directing programs, and coordinating all work within the division and with the other divisions. The qualifications for this position are a minimum of a bachelor of science in engineering, preferably civil or agricultural, should have been registered as a Professional Engineer in Montana, and should have about five years of experience in the engineering field with emphasis on water resources or hydraulic engineering, hydrology or design.

The Planning Engineer has the responsibility for broad-base planning of water resources in the state as well as the overall project planning responsibility on actual or proposed M.W.R.B. projects. This position should be filled by a graduate engineer with a bachelor of science in either civil or agricultural engineering. At least three years of experience in the engineering field is desirable for this position.



The Project Engineer position responsibilities are primarily the identification of problems and needs for reorganization on the M.W.R.B. projects and the supervision of the field headquarters crew. He also coordinates work with the Water Users' Association members and works with construction contractors in the installation of project structural measures. This position should be filled by either a Civil or Agricultural Engineer who has at least two or three years of experience, preferably in the area of construction.

The Design Engineer has major responsibility in the area of the hydraulic and structural design of structures for water development projects. He is also the supervisor for the surveying crew, the drafting section and the hydrography section. This position should be filled by a Civil or Agricultural Engineer and need not have substantial experience in the field as long as university training has been in the area of design.

The field headquarters is directed by the Field Supervisor. This person should have a minimum of two years college education and have several years of experience in the construction field. The responsibilities of the headquarters crew are: (1) the water distribution on the Daly Ditch system at Hamilton, Montana; and (2) the completion of light maintenance needed on all of the active M.W.R.B. projects.

The hydrography section is manned by the Chief Hydrographer and an Assistant Hydrographer. The Chief Hydrographer should have two years of college training and several years of experience in water measurement.

The drafting section includes two positions - a Detailer and a Draftsman. The Detailer should have training in drafting and several years of experience as a draftsman. The Draftsman position is part-time





and should be filled by someone who has drafting training.

The survey crew should have a Chief of Party who either has had several years of experience in surveying or be college trained and have Professional Surveyors' registration. There are presently only two positions on the survey crew.

#### OBJECTIVES

The Engineering Division has traditionally been involved in the actual construction of water development projects around the state. The emphasis is shifting to planning and design activities instead of actual construction work. The Engineering Division will still assist in the planning and design phases of the reorganization of existing M.W.R.B. irrigation projects. Plans, specifications and contracts will be developed for individual projects but all major construction work will be done on a "contractual services" basis with private firms. The Board will be able to supply the necessary construction inspection whether federal, state or private monies are being used to pay for the construction.

The Engineering Division will continue to work in the area of conservancy district studies concerning the feasibility of organizing such districts. The objective in this program would be to encourage the formation of conservancy districts as well as supply immediate information as input on the State Water Plan.

One new direction that the Engineering Division hopes to become involved in is the state supervision for safety of the dams and reservoirs. The objection in this program would be to insure the property holders of Montana that all major dams and reservoirs are constructed in a safe manner. This work will, however, require legislative approval and appropriation.





## Water Resources Division

### FUNCTIONS

This Division is composed of two sections - the Groundwater and Water Resources Survey (Surface Water) Sections:

The groundwater section is responsible for advising the Montana Water Resources Board on meetings pertaining to the administration of the Groundwater Code; maintaining over 50,000 records of groundwater appropriation forms and filing an additional 1,200 groundwater appropriation forms each year; answering numerous inquiries each year pertaining to the appropriation and availability of groundwater; providing technical support and recommendations for the administration of controlled groundwater areas and the only controlled groundwater area in Montana established in 1967; and cooperating with and assisting the U. S. Geological Survey, Montana Bureau of Mines and Geology, Montana Water Well Contractors Examining Board, and others.

This section is also responsible for conducting a continuing comprehensive inventory of all the groundwater resources of the state, which will be used to: (1) determine the availability of groundwater; (2) formulate plans to integrate the uses of ground and surface water resources; (3) provide technical support for proposed projects, including storage; (4) aid in improving man's relation to his environment; and (5) establish a basis for collecting and assimilating hydrologic data.

The water resources survey section (surface water) was created by Statutory Law under Section 89-851, Revised Codes of Montana, 1947.

One of the main functions and responsibilities of the Water



Resources Survey is to obtain a complete inventory of all surface rights in Montana. This investigation of our present uses of water and related land resources is being conducted by the Water Resources Survey Section.

#### PERSONNEL

The following paragraphs describe the various positions and sections in the Water Resources Division, and the qualifications and duties of the individuals or groups:

The Director of the Water Resources Division is responsible for the administration and direction of the Groundwater Code and the Water Resources Survey. Qualifications for this position would consist of a degree in geology, geography, or in some area of general water management. Experience is desirable in the field of supervision, public relations, and general water development.

The responsibilities of the Groundwater Supervisor are mainly connected with the administration of the Groundwater Code. The required qualifications are a bachelor of science degree from an accredited college or university, preferably in the field of geology. Experience relating to geology of fluids and environment would be helpful.

The Assistant Groundwater Supervisor assists the Supervisor with all assigned duties. A college degree in geology, geography and related fields should be a requirement.

The Office Supervisor has charge of all office personnel and coordinates activities between the office and field. Qualifications would consist of a college degree and knowledge of drafting, filing,





photo interpretation, map reading and supervision of personnel. He should have two years of experience in the field operations of the Water Resources Survey as a basic requirement.

The Assistant Office Supervisor is responsible to the Office Supervisor in expanding on all his duties. Experience in drafting and drafting supervision is required, with at least a high school education.

The Surface Water Rights Coordinator is responsible for water right information to the general public in the State of Montana. He should be a specialist in water right data and the writing of water resources publications. He should have at least five or more years experience in the water right field, should be a college graduate, and he should have ability in writing reports.

The Water Resources Survey Coordinator is directly responsible to the Director of the Water Resources Division for information and status of the Water Resources Survey. A college degree and at least five years experience in photo interpretation and field survey is required.

The Field Supervisor coordinates the activities of the field crews with the office. He should be a college graduate with experience in supervision, public relations and a working knowledge of the survey.

The Technicians and Supervisors are responsible for work connected with the Water Resources Survey. At least a high school diploma is required, with advanced training in drafting and photo interpretation.

The Secretaries in the Water Resources Division should be proficient in stenographic work, as well as being able to perform a



variety of routine clerical duties. Qualifications for these positions should be a high school diploma with further business college training. They should be able to take care of telephone messages, make reservations, etc. The Secretaries work under the Director and other assigned Supervisors.

#### OBJECTIVES

The groundwater section plans to make a more extensive and thorough groundwater inventory of the remaining counties in an orderly manner, especially in densely populated counties where groundwater problems are beginning to occur — more specifically, an expansion of the U.S. Geological Survey Cooperative Program on groundwater studies in the Missoula, Great Falls and Helena areas. Also monitoring of groundwater conditions in the Lincoln groundwater study area will resume.

Serious consideration will be given to the possibility of introducing to the State of Montana a permit system to cover groundwater. By so doing, it would enable the state to properly evaluate existing groundwater availability and establish a basis for future planning needs. Many of the present groundwater problems would be avoided with the use of a permit system, by simply denying a permit in an area where there is no water available or where there is a possibility of uncontrollable pollution.

However, before a permit system can be introduced properly and become a reality, the state has to have knowledge of the groundwater situation in the entire state. Therefore, an expansion of groundwater and ground and surface water studies will be accelerated.

Placing all groundwater rights on cards for computers is presently being considered for rapid retrieval and utilization of all groundwater records.





The water resources survey section will complete the survey of the entire state by 1972. The last counties to be completed in published form are: Prairie, Dawson, Richland, Fergus, Petroleum, Garfield, McCone, Roosevelt, Sheridan, Daniels and Beaverhead Counties.

It is planned to make a resurvey of Yellowstone, Big Horn, Stillwater, Custer, Golden Valley, Meagher, Rosebud, Musselshell, Wheatland, Park, Sweetgrass, Treasure and Broadwater Counties in the next three years.

Legislation will be introduced in the 1971 Legislative Assembly covering the administration of surface water rights in a modern water code.

Plans are also in the making to establish approximately seven (7) districts for the purpose of updating all counties and keeping them current, since the present method is always outdated. A more extensive plan for establishing the districts will be introduced during the 1971 Legislature. Passage of the legislation would be very timely in 1973. By the passage of the district concept, the surveys can be kept up-to-date and of more use to the state.

The activities of the Water Resources Division as outlined above will undoubtedly continue and accelerate since water is one of our most important natural resources.









